

# SEQUENCE LISTING

<110> CHAN, Lily  
 CHUNG, Maxey Ching Ming  
 LIM, Renee Lay Hong

<120> Bacterial-derived molecules and therapeutic and  
 diagnostic uses therefor

<130> 1781-0180P

<140> US 09/461,774

<141> 1999-12-15

<160> 22

<170> PatentIn Ver. 2.1

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<212> DNA

<213> Mycobacterium tuberculosis

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Gly Lys Pro Leu Leu Ile Val Ala Glu Asp Val Glu Gly Glu Ala Leu	
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Lys Ala Ala Val Glu Glu Gly Ile Val Pro Gly Gly Gly Ala Ser Leu	
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acc ctg agc tat ggt gac ttg gcc gct gac ggc gtc atc gac ccg gtc 1488  
 Thr Leu Ser Tyr Gly Asp Leu Ala Ala Asp Gly Val Ile Asp Pro Val  
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aag gtg act agg tcg gcg gtg ttg aac gcg tca tcg gtt gcc cgg atg 1536  
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<213> Mycobacterium tuberculosis

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 35 40 45

Asn Asp Gly Val Thr Val Ala Arg Glu Ile Glu Leu Glu Asp Pro Phe  
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Glu Asp Leu Gly Ala Gln Leu Val Lys Ser Val Ala Thr Lys Thr Asn  
 65 70 75 80

Asp Val Ala Gly Asp Gly Thr Thr Thr Ala Thr Ile Leu Ala Gln Ala  
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Leu Ile Lys Gly Gly Leu Arg Leu Val Ala Ala Gly Val Asn Pro Val  
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Glu Ala Met Asn Lys Val Gly His Asp Ser Val Val Ser Val Lys Glu				160
	165		170	175
Ser Ser Thr Leu Gly Thr Glu Leu Glu Phe Thr Glu Gly Ile Gly Phe				
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His Lys Gly Phe Leu Ser Ala Tyr Phe Val Thr Asp Phe Asp Asn Gln				
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Gln Ala Val Leu Glu Asp Ala Leu Ile Leu Leu His Gln Asp Lys Ile				
	210		215	220
Ser Ser Leu Pro Asp Leu Leu Pro Leu Leu Glu Lys Val Ala Gly Thr				
225		230		235
Gly Lys Pro Leu Leu Ile Val Ala Glu Asp Val Glu Gly Glu Ala Leu				240
	245		250	255
Ala Thr Leu Val Val Asn Ala Ile Arg Lys Thr Leu Lys Ala Val Ala				
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Val Lys Gly Pro Tyr Phe Gly Asp Arg Arg Lys Ala Phe Leu Glu Asp				
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Leu Ala Val Val Thr Gly Gly His Val Val Asn Pro Asp Ala Gly Ile				
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Val Leu Arg Glu Val Gly Leu Glu Val Leu Gly Ser Ala Arg Arg Val				
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Lys Ala Ala Val Glu Glu Gly Ile Val Pro Gly Gly Gly Ala Ser Leu				
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Gly Asp Glu Val Leu Gly Val Asp Val Phe Ser Glu Ala Leu Ala Ala				
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Thr Leu Ser Tyr Gly Asp Leu Ala Ala Asp Gly Val Ile Asp Pro Val				
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 Ser Glu Ile Arg Thr Ala Arg Cys Ala Thr Val Ser Val Pro Val Asp  
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 Tyr Asp Gln Pro Gly Gly Thr Gln Ala Lys Leu Ala Val Ile Arg Val  
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Ala Asp Thr Asp Ile Leu Arg His Phe Asp Leu Val Gly Phe Asp Pro	
130 135 140	
aga ggg gtc ggc cac tcg acc cct gcg ttg cgg tgt cgc acc gac gcc	480
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Glu Phe Asp Ala Tyr Arg Arg Asp Pro Met Ala Asp Tyr Ser Pro Ala	
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ggc gtc acc cac gtc gaa cag gtc tac cgg cag ttg gcc cag gac tgt	576
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Gly Ser Thr Gly Asp Arg Val Val Ile Ser Ala Pro Gln Gly Leu Glu	
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Gly Gly Tyr Pro Ala Val Leu Thr Ser Pro Val Ser Phe Leu Gln Arg			
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Pro Ala Arg Trp Met His Leu Met Ala Ser Asp Phe His Ala Phe Ser			
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ggt agc gag cgg gta cag gcc gcg acg atc aag cgc ttc gcc gac cgc			864
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Asn	Val	Arg	Val	Asn	Phe	Glu	Gln	Leu	Met	Ser	Gly	Tyr	Phe	Ala	Asp				
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Thr	Asp	Gly	Ile	Pro	Pro	Pro	Asn	Ser	Ala	Leu	Val	Ser	Trp	Leu	Pro				
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Phe	Tyr	His	Asp	Met	Gly	Leu	Val	Ile	Gly	Ile	Cys	Ala	Pro	Ile	Leu				
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Gly	Gly	Tyr	Pro	Ala	Val	Leu	Thr	Ser	Pro	Val	Ser	Phe	Leu	Gln	Arg				
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Pro	Ala	Arg	Trp	Met	His	Leu	Met	Ala	Ser	Asp	Phe	His	Ala	Phe	Ser				
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Ala	Ala	Pro	Asn	Phe	Ala	Phe	Glu	Leu	Ala	Ala	Arg	Arg	Thr	Thr	Asp				
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Asp	Asp	Met	Ala	Gly	Arg	Asp	Leu	Gly	Asn	Ile	Leu	Thr	Ile	Leu	Ser				
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Thr Phe Asp Thr Arg Leu Met Arg Leu Glu Asp Glu Met Lys Glu Gly	
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Val His Ile Met Val Arg Asp Gly Gln Leu Thr Ile Lys Ala Glu Arg	
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Thr Glu Gln Lys Asp Leu Asp Gly Arg Ser Glu Phe Ala Tyr Gly Ser	
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Phe Val Arg Thr Val Ser Leu Pro Val Gly Ala Asp Glu Asp Asp Ile	
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Lys Ala Thr Tyr Asp Lys Gly Ile Leu Thr Val Ser Val Ala Val Ser	
115 120 125	
gaa ggg aag cca acc gaa aag cac att cag atc cgg tcc acc aac tga	432
Glu Gly Lys Pro Thr Glu Lys His Ile Gln Ile Arg Ser Thr Asn	
130 135 140	

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<211> 143

<212> PRT

<213> Mycobacterium tuberculosis

<400> 8

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20 25 30	
Thr Phe Asp Thr Arg Leu Met Arg Leu Glu Asp Glu Met Lys Glu Gly	
35 40 45	
Arg Tyr Glu Val Arg Ala Glu Leu Pro Gly Val Asp Pro Asp Lys Asp	
50 55 60	
Val His Ile Met Val Arg Asp Gly Gln Leu Thr Ile Lys Ala Glu Arg	

65		70		75		80									
Thr	Glu	Gln	Lys	Asp	Leu	Asp	Gly	Arg	Ser	Glu	Phe	Ala	Tyr	Gly	Ser
				85					90					95	
Phe	Val	Arg	Thr	Val	Ser	Leu	Pro	Val	Gly	Ala	Asp	Glu	Asp	Asp	Ile
			100					105					110		
Lys	Ala	Thr	Tyr	Asp	Lys	Gly	Ile	Leu	Thr	Val	Ser	Val	Ala	Val	Ser
		115					120					125			
Glu	Gly	Lys	Pro	Thr	Glu	Lys	His	Ile	Gln	Ile	Arg	Ser	Thr	Asn	
	130					135					140				

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 <211> 1161  
 <212> DNA  
 <213> Mycobacterium tuberculosis

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<400> 9

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Asn	Ser	Met	Pro	Val	Pro	Pro	Ala	Pro	Pro	Ala	Pro	Pro	Ser	Pro	Ile	
1				5				10					15			
aac	ccg	ccg	gtg	ccg	ccg	gtg	ccg	ccg	cta	ccg	gcc	gcg	ccc	cg	acg	96
Asn	Pro	Pro	Val	Pro	Pro	Val	Pro	Pro	Leu	Pro	Ala	Ala	Pro	Arg	Thr	
			20					25					30			
ctg	tcg	ccg	ccg	gta	ccg	ccg	gcg	ccg	ccg	tcg	ccg	atc	agc	ttg	gcg	144
Leu	Ser	Pro	Pro	Val	Pro	Pro	Ala	Pro	Pro	Ser	Pro	Ile	Ser	Leu	Ala	
			35				40					45				
gcc	ccg	ccg	ctg	cca	ccg	gac	ccg	ccg	atg	ccg	ccg	gcc	att	tgg	tcc	192
Ala	Pro	Pro	Leu	Pro	Pro	Asp	Pro	Pro	Met	Pro	Pro	Ala	Ile	Trp	Ser	
	50					55					60					
gca	ctg	gag	gcg	ccg	aac	cct	ccg	gtg	ccc	ccg	gcg	ccg	ccg	gga	ccg	240
Ala	Leu	Glu	Ala	Pro	Asn	Pro	Pro	Val	Pro	Pro	Ala	Pro	Pro	Gly	Pro	
65					70				75					80		
aac	agt	gcg	ccg	gca	ccg	ccg	atg	ccg	ccg	acg	cct	cct	ttg	ccg	ccg	288
Asn	Ser	Ala	Pro	Ala	Pro	Pro	Met	Pro	Pro	Thr	Pro	Pro	Leu	Pro	Pro	

85	90	95	
gtg ccg ccg ggg tgc ggc gcg ccg aga ccg gtt ccg gcg gtg ccg cca			336
Val Pro Pro Gly Ser Gly Ala Pro Arg Pro Val Pro Ala Val Pro Pro			
100	105	110	
atg ccg cca gcg ccg aag agg atg ccg gcg ttg ccg ccc gcc ccg ccg			384
Met Pro Pro Ala Pro Lys Arg Met Pro Ala Leu Pro Pro Ala Pro Pro			
115	120	125	
gcc ccg ccc tca ccg ccc acg agt tgg tta gcg gtg cca gtt ccg ccg			432
Ala Pro Pro Ser Pro Pro Thr Ser Trp Leu Ala Val Pro Val Pro Pro			
130	135	140	
gtg ccg ccg gtc ccg ccg ttg ccg gtg aag atg ccg ccg tgc cct ccg			480
Val Pro Pro Val Pro Pro Leu Pro Val Lys Met Pro Pro Ser Pro Pro			
145	150	155	160
gtg ccg ccg ttc cct ccg gcc gag ccg gag act ccg aac ccg ccg gcg			528
Val Pro Pro Phe Pro Pro Ala Glu Pro Glu Thr Pro Asn Pro Pro Ala			
165	170	175	
ccg ccg gca ccg cca ttg gag aac agc ccg ccg ccc ccg ccg gtg ccg			576
Pro Pro Ala Pro Pro Leu Glu Asn Ser Pro Pro Pro Pro Pro Val Pro			
180	185	190	
ccg gtg cca ccg gtg ccc ccg ttg acg ctc aac ccg ccg gtg ccg ccg			624
Pro Val Pro Pro Val Pro Pro Leu Thr Leu Asn Pro Pro Val Pro Pro			
195	200	205	
gca ccg ccg gcg gcc aac acc tgc aac agc ccg ctg cga ccg ccg gcc			672
Ala Pro Pro Ala Ala Asn Thr Ser Asn Ser Pro Leu Arg Pro Pro Ala			
210	215	220	
ccg ccg gcg cca ccg ttg aag cct ggc ccg ccg gcc ccg ccg atg cca			720
Pro Pro Ala Pro Pro Leu Lys Pro Gly Pro Pro Ala Pro Pro Met Pro			
225	230	235	240
ccg gct ccg aac agc ccg gcc gcc ccg ccg tgc ccg ccg agc ccg cct			768
Pro Ala Pro Asn Ser Pro Ala Ala Pro Pro Ser Pro Pro Ser Pro Pro			
245	250	255	
gtg ccg gtg ttc ccg act ccg ccg ggc ccc ccg gcg ccg ccg gag ccg			816
Val Pro Val Phe Pro Thr Pro Pro Gly Pro Pro Ala Pro Pro Glu Pro			
260	265	270	
aac agc agc ccg ccg gcc ccg ccg gcc ccg cca gcc gcg ccg ttg ccc			864
Asn Ser Ser Pro Pro Ala Pro Pro Ala Pro Pro Ala Ala Pro Leu Pro			



275	280	285	
ggg ccg tca ccc ccg gcc cca ccc gcc ccg ccg ttg ccg aat agc ccc			912
Gly Pro Ser Pro Pro Ala Pro Pro Ala Pro Pro Leu Pro Asn Ser Pro			
290	295	300	
gcg gct cca cct ggg ccg ccg gcc tgg ccg ggc gcc ccg gac ccg ccg			960
Ala Ala Pro Pro Gly Pro Pro Ala Trp Pro Gly Ala Pro Asp Pro Pro			
305	310	315	320
gcc ccg ccg ttg ccg tac agc agc ccg ccg gcc ccg ccg gct tgc ccg			1008
Ala Pro Pro Leu Pro Tyr Ser Ser Pro Pro Ala Pro Pro Ala Cys Pro			
	325	330	335
gtc ccc ggt gcg ccg ttg gcg ccg ttg ccg atc agc gga cgc ccc agc			1056
Val Pro Gly Ala Pro Leu Ala Pro Leu Pro Ile Ser Gly Arg Pro Ser			
	340	345	350
aac agc tgg gtg ggc gtg ttc aca atg ttg agc agg ccc tcc aac ggc			1104
Asn Ser Trp Val Gly Val Phe Thr Met Leu Ser Arg Pro Ser Asn Gly			
	355	360	365
gcc gcg gcg gcg gcc tca gcg ctc gcg tac gcg cca gcg ccc gca gta			1152
Ala Ala Ala Ala Ala Ser Ala Leu Ala Tyr Ala Pro Ala Pro Ala Val			
	370	375	380
aag gtt tga			1161
Lys Val			
385			

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<211> 386

<212> PRT

<213> Mycobacterium tuberculosis

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Asn Pro Pro Val Pro Pro Val Pro Pro Leu Pro Ala Ala Pro Arg Thr			
	20	25	30
Leu Ser Pro Pro Val Pro Pro Ala Pro Pro Ser Pro Ile Ser Leu Ala			
	35	40	45
Ala Pro Pro Leu Pro Pro Asp Pro Pro Met Pro Pro Ala Ile Trp Ser			
	50	55	60
Ala Leu Glu Ala Pro Asn Pro Pro Val Pro Pro Ala Pro Pro Gly Pro			
	65	70	75
Asn Ser Ala Pro Ala Pro Pro Met Pro Pro Thr Pro Pro Leu Pro Pro			

				85					90					95			
Val	Pro	Pro	Gly	Ser	Gly	Ala	Pro	Arg	Pro	Val	Pro	Ala	Val	Pro	Pro		
			100					105					110				
Met	Pro	Pro	Ala	Pro	Lys	Arg	Met	Pro	Ala	Leu	Pro	Pro	Ala	Pro	Pro		
			115				120					125					
Ala	Pro	Pro	Ser	Pro	Pro	Thr	Ser	Trp	Leu	Ala	Val	Pro	Val	Pro	Pro		
			130			135					140						
Val	Pro	Pro	Val	Pro	Pro	Leu	Pro	Val	Lys	Met	Pro	Pro	Ser	Pro	Pro		
145					150				155						160		
Val	Pro	Pro	Phe	Pro	Pro	Ala	Glu	Pro	Glu	Thr	Pro	Asn	Pro	Pro	Ala		
			165				170					175					
Pro	Pro	Ala	Pro	Pro	Leu	Glu	Asn	Ser	Pro	Pro	Pro	Pro	Pro	Val	Pro		
			180				185					190					
Pro	Val	Pro	Pro	Val	Pro	Pro	Leu	Thr	Leu	Asn	Pro	Pro	Val	Pro	Pro		
			195				200					205					
Ala	Pro	Pro	Ala	Ala	Asn	Thr	Ser	Asn	Ser	Pro	Leu	Arg	Pro	Pro	Ala		
			210			215					220						
Pro	Pro	Ala	Pro	Pro	Leu	Lys	Pro	Gly	Pro	Pro	Ala	Pro	Pro	Met	Pro		
225					230				235					240			
Pro	Ala	Pro	Asn	Ser	Pro	Ala	Ala	Pro	Pro	Ser	Pro	Pro	Ser	Pro	Pro		
			245				250					255					
Val	Pro	Val	Phe	Pro	Thr	Pro	Pro	Gly	Pro	Pro	Ala	Pro	Pro	Glu	Pro		
			260				265					270					
Asn	Ser	Ser	Pro	Pro	Ala	Pro	Pro	Ala	Pro	Pro	Ala	Ala	Pro	Leu	Pro		
			275				280					285					
Gly	Pro	Ser	Pro	Pro	Ala	Pro	Pro	Ala	Pro	Pro	Leu	Pro	Asn	Ser	Pro		
			290			295					300						
Ala	Ala	Pro	Pro	Gly	Pro	Pro	Ala	Trp	Pro	Gly	Ala	Pro	Asp	Pro	Pro		
305				310					315					320			
Ala	Pro	Pro	Leu	Pro	Tyr	Ser	Ser	Pro	Pro	Ala	Pro	Pro	Ala	Cys	Pro		
			325				330					335					
Val	Pro	Gly	Ala	Pro	Leu	Ala	Pro	Leu	Pro	Ile	Ser	Gly	Arg	Pro	Ser		
			340				345					350					
Asn	Ser	Trp	Val	Gly	Val	Phe	Thr	Met	Leu	Ser	Arg	Pro	Ser	Asn	Gly		
			355			360					365						
Ala	Ala	Ala	Ala	Ala	Ser	Ala	Leu	Ala	Tyr	Ala	Pro	Ala	Pro	Ala	Val		
			370			375					380						
Lys	Val																
385																	

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Ser Lys Leu Ile Glu Tyr Asp Glu Leu Ala Leu Glu Ala Met Glu  
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Ser Lys Leu Ile Glu Tyr Asp Glu Thr Ala Arg His Ala Met Glu  
 1 5 10 15

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Ala Lys Thr Ile Ala Tyr Asp Glu Glu Ala Arg Val  
 1 5 10

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Ala Glu Val Asp Ala Tyr Lys Phe Asp Pro Asp Ala Val Asp  
 1 5 10

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1 5 10

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Ala Glu Tyr Thr Leu Pro Asp Leu Asp Trp Asp Tyr Gly  
1 5 10

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<212> PRT

<213> Mycobacterium tuberculosis

<400> 19

Met Glu Ile Asp Ile Leu Ala Val Ala Ala Pro  
1 5 10

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Ile Glu Val Asp Leu Leu Asp Leu Asp Ala Pro  
1 5 10

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<211> 13

<212> PRT

<213> Mycobacterium tuberculosis

<400> 21

Ala Thr Thr Leu Pro Val Gln Arg His Asp Ala Arg Leu

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5

10

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Ala Thr Leu Pro Val Gln Arg His Pro Arg Ser Leu

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10